

Serial No. NOT YET ASSIGNED

microphone, is arranged to measure noise 55. The microphone is connected to a filter 65 via conductor 22. The filter is connected to an amplifier 52 via conductor 24. The amplifier is connected to an inverter 51 and then to a loudspeaker 16 via conductor 21. The filter functions to select which noise is passed on to the amplifier and the inverter and subsequently cancelled by the cancellation signal. The selection can be based on the spatial or spectral characteristics of the sound. For example, the filter may be a low pass filter allowing low frequency sound such as road noise to pass and subsequently be cancelled by the cancellation signal. High frequency sound such as voices in not passed by the filter and thus not cancelled by the cancellation signal. The inverter 51 functions to change the phase of the signal by 180 degrees which forms the cancellation signal. This cancellation signal is then transmitted by the loudspeaker as a sound wave towards area 80. The result is that in area 80 the noise measured by the microphone will be substantially reduced. As will be appreciated, the area 80 preferably corresponds to the location of one of the driver's or passenger's ears.